STRUCTURAL COLLAPSE RESCUE TEAM

DESCRIPTION	A Structural Collapse Rescue Team conducts rescue in collapsed structures and debris fields, both natural and human-caused
RESOURCE CATEGORY	Search and Rescue
RESOURCE KIND	Team
OVERALL FUNCTION	The Structural Collapse Rescue Team performs the following functions: 1. Provides rescue in a structural collapse environment for unaccounted individuals 2. Conducts search, rescue, and recovery in structural collapse technical rescue environments 3. Team provides medical care to include Basic Life Support (BLS) 4. Operates in environments with and without infrastructure, including those with compromised access to roadways, utilities and transportation, or medical facilities; and with limited availability of food and water 5. Operates within the Incident Command System (ICS) 6. Operates primarily for rescue and recovery to the nearest safe area for air rescue, ambulance or other transportation
COMPOSITION AND ORDERING SPECIFICATIONS	1. The mission location and operational environments such as size of structure and type of structure must be specified 2. This team is intended and equipped to conduct primary rescue of humans and animals from a structural collapse environment and deliver them to safe refuge 3. Type of animal rescue (e.g. livestock/equine, companion, avian, and non-domestic/exotic animals) must be specified 4. The need for additional specialized personnel (e.g. medical, animal, logistics, advisors, or helicopter support) must be specified 5. Operations in SAR environments may be recognized as immediately dangerous to life and health (IDLH), per ASTM International (ASTM) F2890 Standard Guide for Hazard Awareness for Search and Rescue Personnel. The requesting authority must consider the need for additional capabilities or endorsements 6. The need for additional vehicles, trailers, equipment, or supplies (fuel) must be specified 7. Equipment (hardware, software, ropes, victim evacuation devices, personal protective equipment (PPE), etc.) needed to accomplish operations must be specified 8. Specify heavy, medium or light operations when ordering: a. Heavy is capable of rescue operations in heavy floor construction, pre-cast concrete construction, reinforced concrete, steel frame construction, and mass transportation rescue b. Medium is capable of rescue operations in heavy wall construction, high angle rope rescue (not including highline systems), confined space rescue (permit required), non-reinforced concrete, trench, and excavation rescue c. Light is capable of rescue operations in light frame, ordinary construction 9. The need to order heavy equipment such as cranes, aerial lifts (booms) and industrial style forklifts must be specified 10. The Agency Having Jurisdiction (AHJ) and resource must address, prior to deployment, certain needs, including: a. Communications beyond the resource's intra-team communications (such as programmable inter-operable communications with Command, Logistics, military, etc.) b. Contaminated environments, and related PPE, respiratory protection, clothing, and equipment c. Logistics support needs for this resource (security or force protection, lodging, transportation, meals, etc.)

Each type of resource builds on the qualifications of the type below it. For example, Type 1 qualifications include the qualifications in Type 2, plus an increase in capability. Type 1 is the highest qualification level.

COMPONENT	TYPE 1	TYPE 2	TYPE 3	NOTES
MINIMUM PERSONNEL PER TEAM	6	6	5	Not Specified

COMPONENT	TYPE 1	TYPE 2	TYPE 3	NOTES
MANAGEMENT AND OVERSIGHT PERSONNEL PER TEAM	Same as Type 2	1 - NIMS Type 1 Structural Collapse Rescue Team Leader	1 - National Incident Management System (NIMS) Type 1 Structural Collapse Rescue Team Leader	Not Specified
SUPPORT PERSONNEL PER TEAM	Same as Type 2	5 - NIMS Type 1 Structural Collapse Rescue Technicians	4 - NIMS Type 2 Structural Collapse Rescue Technicians	Not Specified
CONSTRUCTION TYPE CAPABILITY PER TEAM	Heavy	Medium	Light	Not Specified
RESCUE CAPABILITIES PER TEAM	Same as Type 2 PLUS Conducts Rescue in Light, Medium, and Heavy construction, consistent with the UN INSARAG's US&R categories of structures: 1. Heavy floor construction	Same as Type 3 PLUS Conducts Rescue in Light and Medium construction, consistent with the UN INSARAG's US&R categories of structures: 1. Heavy wall construction 2. Concrete construction 3. Steel frame construction	Conducts Rescue in Light construction, consistent with the United Nations (UN) International Search and Rescue Advisory Group's (INSARAG) Guidelines and Methodology for Urban Search and Rescue (US&R) categories of structures: 1. Light frame construction 2. Performs thermal, optical, acoustical and audio search 3. Provides First Aid to include cardiopulmonary resuscitation (CPR) and automated external defibrillator (AED) 4. Confined space (permit - required, non-cave, non-mine)	Not Specified
GENERAL CAPABILITIES PER TEAM	Same as Type 2	Same as Type 3	1. Provides for the basic Incident Command System (ICS) functions: a. Safety of their personnel and operations b. Medical care of their personnel and subjects c. Logistics: small repairs of small equipment and incident logistics support d. Plans team level tactics e. Plans camp shelter if needed f. Simple decontamination of personnel g. Basic ground support for helicopter operations and possibly greater 2. Capable of using ground and water vehicles and aircraft for support	Not Specified

COMPONENT	TYPE 1	TYPE 2	TYPE 3	NOTES
GENERAL EQUIPMENT PER TEAM	Same as Type 2	Same as Type 3	1. Communications 2. Access, search, rescue, recovery 3. Victim assessment, treatment, and evacuation 4. Vehicle support equipment 5. Ground support for air operations 6. Base and spike camp 7. Discipline-specific PPE, tools, respirators, and breathing apparatus	Not Specified
RESCUE EQUIPMENT PER TEAM	Same as Type 2 PLUS: 1. Cutting torches 2. Rebar cutter 3. Shoring equipment	Same as Type 3 PLUS: 1. Breaching and breaking equipment 2. Air bags 3. Hydraulic jacks 4. Technical rope rescue equipment	1. Anchor plates 2. Brake rack 3. Carabiners 4. Pulleys 5. Ropes 6. Hand tools	Hand tools include shovels, gasoline or electric saws and bolt cutters. Breaching and breaking equipment includes sledgehammers and crowbars. Additional heavy equipment may need to be ordered such as cranes, aerial lifts (booms) and industrial style forklifts.
VICTIM EXTRACTION SYSTEM EQUIPMENT PER TEAM	Same as Type 2	Same as Type 3	1. Litter basket 2. Litter wheel 3. Adjustable bridle 4. Patient harness system	Not Specified
PERSONAL PROTECTIVE EQUIPMENT (PPE) EQUIPMENT PER TEAM	Same as Type 2	Same as Type 3	Minimum PPE consistent with this resource's capabilities and needs, including: 1. Helmet(s), headlamp(s), batteries 2. Eye and hearing protection 3. Breathing protection 4. Uniform/protective clothing 5. Gloves 6. Footwear 7. Deployment/travel pack 8. Initial attack pack 9. Personal medical kit 10. Survival Kit 11. Other necessary field packs or gear 12. Foul weather clothing	Not Specified

COMPONENT	TYPE 1	TYPE 2	TYPE 3	NOTES
COMMUNICATIONS EQUIPMENT PER TEAM MEMBER	Same as Type 2	Same as Type 3	1. Intra-team and Inter-team communications system 2. Programmable radios 3. Phone; cell or satellite, battery, charger 4. Battery chargers 5. Handheld Global Positioning System (GPS) unit(s) 6. Handi-mikes or earphones/headsets	Intra-team and inter-team communications are consistent with National Interoperability Field Operations Guide (NIFOG).
TRANSPORTATION EQUIPMENT PER TEAM	Same as Type 2	Same as Type 3	2 - Vehicles	Vehicles are for use in transporting team members and equipment and can be capable of 2 or 4-wheel drive.

NOTES

Nationally typed resources represent the minimum criteria for the associated component and capability. The AHJ may require additional capabilities and endorsements for unique working environments.

REFERENCES

1. FEMA, NIMS 509-8: Structural Collapse Search Technician
2. FEMA, NIMS 509-8: Structural Collapse Rescue Technician
3. FEMA, NIMS 509-8: Structural Collapse Search Team Leader
4. FEMA, NIMS 509-8: Structural Collapse Rescue Team Leader
5. FEMA, NIMS 508-8: Structural Collapse Search Team
6. FEMA, NIMS 509-8: Canine Search Specialist, Disaster/Structural Collapse - Live
7. FEMA, National Incident Management System (NIMS), October 2017
8. United Nations (UN) International Search and Rescue Advisory Group (INSARAG), Guidelines and Methodology, April 2012
9. American National Standard Institute (ANSI) A10.14 American National Standard for Construction and Demolition Operations - Requirements for Safety Belts, Harnesses, Lanyards and Lifelines for Construction and Demolition Use, latest edition adopted
10. ANSI Z359.1 American National Standard Safety Requirements for Personal Fall Arrest Systems, Subsystems and Components, latest edition adopted
11. ASTM International (ASTM) F-2890-12 Standard Guide for Hazard Awareness for Search and Rescue Personnel, latest edition adopted
12. International Code Council (ICC), International Building Code
13. National Fire Protection Association (NFPA) 1983: Standard on Life Safety Rope and Equipment for Emergency Services, latest edition adopted
14. Occupational Safety and Health Administration (OSHA), 29 CFR 1910.120 (Code of Federal Regulations), Hazardous Waste Operations and Emergency Response
15. OSHA, 29 CFR 1910.146, Permit-Required Confined Spaces
16. OSHA, 29 CFR 1910.134, Respiratory Protection
17. U.S. Department of Homeland Security, National Interoperability Field Operations Guide (NIFOG), v 1.4, January 2011